

REMARKS/ARGUMENTS

This is responsive to the Official Action of March 26, 2010. Claims 1-8 are pending in the application.

These claims have been rejected as allegedly being “obvious” over a combination of two references. While the Official Action mentions a machine translation of the primary reference, the Official Action did not include a copy of this translation. However, the examiner kindly supplied the undersigned with the text of this document with his e-mail message of September 9 and it is on the basis of this information that the following comments and observations are provided.

The Examiner asserts that claim 1 is obvious based on the combined teaching of Nagura (JP 7211665) and Aston (US 2004/0091421).

For the purposes of the present discussion, applicants are relying on the same machine translation of Nagura as provided by the Examiner in his e-mail of 9 September 2010.

Applicants respectfully disagree with the Examiner’s assessment of Nagura in particular and submit that the subject matter of claim 1 is not obvious in view of the cited prior art.

The Examiner has made a general assertion, without citing specific passages, that Nagura discloses surrounding a definite amount of phosphorus with a layer of silicon particles and is heated (is this a reference to the phosphorus or silicon?) directly in such a manner to provide the establishment of a temperature difference between at least part of the silicon layer and the sample of phosphorus. More specifically, on page 3 of the Office Action, the Examiner states as follows in connection with Nagura:

“Additional disclosure includes that during the reaction process, a definite amount of phosphorus is taken and is surrounded with a layer of silicon particles, and is heated directly in such a manner to provide the establishment of a temperature difference between at least part of the silicon layer and the sample of phosphorus, and in such a manner that at least some of the phosphorus is vaporized and contact with at least part of the silicon to produce composite material comprising silicon and phosphorus (entire document).”

Applicants have reviewed Nagura carefully and have been unable to find such a disclosure.

For example, there is no clear and unambiguous disclosure of phosphorus being substantially surrounded by a layer of silicon, the layer of silicon comprising a multiplicity of silicon particles, as required by (b) of current claim 1.

In addition, there is no clear and unambiguous disclosure of heat being applied to the silicon in such a manner that a temperature difference is established between at least part of the silicon layer and the sample of phosphorus, as required by (c) of current claim 1.

Nagura states only that silicon and red phosphorus are enclosed in a quartz tube under vacuum and heated (paragraph [0009], lines 6-7). There is simply no mention of any temperature difference being established between at least part of the silicon layer and the sample of phosphorus.

In short, Nagura fails to disclose at least the features described in (b) and (c) of pending claim 1 and claim 1 is therefore patentable based on the deficiencies of this reference. Due to the claim dependencies, claims 2 to 8 are also patentable (see MPEP §2143.03). Should the Examiner maintain that Nagura does disclose the features mentioned above, it is requested that the Examiner make reference to the relevant passages of Nagura, rather than a general assertion based on the “entire document”.

There is no teaching or suggestion of the features which are missing from Nagura in Aston hence the defects in Nagura remain. Aston describes therapeutic products comprising silicon and radionucleotides. The Examiner refers specifically to paragraph [0132] of Aston.

The issue of obviousness is concerned with a method of preparing a composite material comprising phosphorus and silicon in which – inter alia - the phosphorus is substantially surrounded with a layer of silicon, the layer of silicon comprising a multiplicity of silicon particles.

At paragraph [0133] of Aston it is stated that a standard set of CZ Si wafers, degenerately doped with phosphorous is formed into a powder by ball milling, sieving and wet etching. There is no teaching or suggestion that these doped wafers may have been produced by the method according to current claim 1.

As such, it is considered that the subject matter of current claim 1 cannot be rendered obvious to one of ordinary skill in the art based on the disclosure of Nagura in combination with that of Aston.

Withdrawal of the obviousness rejection is requested because the claimed invention would not have been obvious to the ordinary skilled artisan at the time applicants made their invention.

Having responded to the rejection contained in the Office Action, applicants submit that the claims are in condition for allowance and earnestly solicit an early Notice to that effect. The examiner is invited to contact the undersigned if any further information is required.

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 14-1140.

Respectfully submitted,

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